

# ATTACHMENT

Excerpt from:

*Brief of Business and Law Professors as Amici Curiae in Support of the Respondents, KSR Int'l v. Teleflex, Inc., S.Ct. docket 04-1350, pp. 21-24 (Oct. 16, 2006)*

IN THE  
**Supreme Court of the United States**

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KSR INTERNATIONAL CO.,

*Petitioner,*

v.

TELEFLEX INC. and  
TECHNOLOGY HOLDING CO.,

*Respondents.*

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**ON WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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**BRIEF OF BUSINESS AND LAW PROFESSORS AS  
*AMICI CURIAE* IN SUPPORT OF THE RESPONDENTS**

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understood, the Court of Appeals' TSM approach, while by no means removing all hindsight bias or creating absolute certainty, is the best of the currently available options.

#### *A. TSM's Framework Combats Hindsight Bias While Alternatives Cater to It*

The Court emphasized in *Graham* that a proper analysis of obviousness should avoid hindsight bias. 383 U.S. at 36 (noting the need to "guard against slipping into use of hindsight" when determining nonobviousness) (quoting *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (6th Cir. 1964)). And yet, the Court also recognized that the nonobviousness framework established in *Graham* did not alone solve the hindsight problem. *Id.* This insight was confirmed in a recent study of nonobviousness decision-making.<sup>31</sup> Among the proposed alternatives in this case, TSM best satisfies the Court's mandate to combat the hindsight bias in nonobviousness decision-making.

1. Section 103 states that a patent cannot issue when the claimed subject matter "would have been obvious at the time the invention was made." 35 U.S.C. § 103(a). The Patent Act thus requires that the decision be based on whether the invention was non-obvious in the *ex ante* world immediately prior to the invention's creation. A proper non-obvious decision must not take into account the *ex post* fact that the invention actually was achieved. But ignoring the fact of invention is easier said than done. Humans are cognitively incapable of preventing knowledge gained through hindsight (here, that the invention was achieved) from impacting their analysis of past events, as required for the proper *ex ante*

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<sup>31</sup> Gregory Mandel, *Patently Non-Obvious II: Experimental Study on the Hindsight Issue before the Supreme Court*, 9 Yale J. of L. & Tech. \_\_\_\_\_ (forthcoming 2006), available at [http://ssrn.com/abstract\\_id=928662](http://ssrn.com/abstract_id=928662), at 15.

analysis.<sup>32</sup> Because of this hindsight bias, individuals routinely overestimate the *ex ante* predictability of events after they have occurred.<sup>33</sup> Critically for patent law, once individuals have hindsight information, they exaggerate what could have been anticipated in foresight and not only tend to view what has occurred as having been inevitable, but also as having appeared “relatively inevitable” beforehand.<sup>34</sup> As the Court has succinctly stated, “[n]ow that [the invention] has succeeded, it may seem very plain to any one that he could have done it as well.” *Loom Co. v. Higgins*, 105 U.S. 580, 591 (1882).

Hindsight bias, if left unchecked, causes erroneous findings of obviousness. A recent study, based on actually-litigated patents, looked at the effects of hindsight bias on mock jurors and found a significant hindsight effect in nonobviousness determinations.<sup>35</sup> The study found the magnitude of the hindsight bias in patent decisions to be greater than that in other legal judgments.<sup>36</sup> If not ameliorated, the validity of the whole nonobviousness

<sup>32</sup> Baruch Fischhoff, *For Those Condemned to Study the Past: Heuristics and Biases in Hindsight, in Judgment Under Uncertainty: Heuristics and Biases* 335 (Kahneman et al. eds., 1982).

<sup>33</sup> *Id.* at 341.

<sup>34</sup> *Id.*; see also *Graham v. Conner*, 490 U.S. 386, 396-97 (1989) (cautioning against the “20/20 vision of hindsight” when determining whether an officer used reasonable force); *Strickland v. Washington*, 466 U.S. 668, 689 (1984) (discussing the “distorting effects hindsight” when determining ineffective assistance of counsel).

<sup>35</sup> See Gregory Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 Ohio St. L.J. \_\_\_\_ (forthcoming 2006), available at <http://ssrn.com/abstract=871684>, at 14-16.

<sup>36</sup> See *id.* at 16 (reporting that an average of 39% of mock jurors shifted their decisions concerning nonobviousness when presented with the invention’s existence).

inquiry—and thus the ultimate effectiveness of the patent system—is compromised by the hindsight bias.

While providing patent protection for obvious inventions is harmful to technological innovation, so too is the denial of protection for non-obvious inventions. Patent protection is needed to encourage the production of inventions, encourage their disclosure to the public, and foster their commercialization and exploitation for the greater public good. *See Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146-47, 151-52 (1989). The hindsight bias can affect this incentive structure by raising the requirement for patent protection too high and denying exclusivity for those very inventions the patent system wishes to foster. Left unaddressed, the hindsight bias could prevent the patent law from fulfilling its constitutional mandate—to “promote the Progress of . . . useful Arts.” U.S. Const. Art. I, § 8, cl. 8. *See also Graham*, 383 U.S. at 36.

2. The TSM analysis is constructed squarely to meet this goal. This approach requires a fact-finder to evaluate the technological context of the invention, through the eyes of the ‘person having ordinary skill in the art.’ For it is only with this careful focus on the contemporaneous information available to the inventor that a decision-maker can determine whether the invention was actually obvious in light of the state of the art at the time the invention was achieved, not that the invention merely appears obvious in hindsight.<sup>37</sup> TSM forces the decision-maker to ground in actual evidence an initial conclusion that may have been prejudiced by the hindsight bias.<sup>38</sup> If there is no such information indicating that the invention would have been created in the absence of

<sup>37</sup> See *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006).

<sup>38</sup> See *Alza Corp. v. Mylan Labs., Inc.*, No. 06-1019 (Fed. Cir. Sept. 6, 2006) (noting that TSM requires more than “mere speculation or conjecture” to prove obviousness).

non-obvious insight, then no TSM is found and the invention is properly held non-obvious. TSM thus provides an objective check against even the unconscious application of hindsight.<sup>39</sup>

3. In sharp contrast to TSM, the alternative tests presented by Petitioners and supporting amici invite hindsight and would thus increase the possibility of erroneous obvious determinations.

The first proposed alternative is to look “to whether a person having ordinary skill in the art would have been *capable* of adapting extant technology to achieve a desired result.” Brief of Petitioner, at 16 (emphasis in original).<sup>40</sup> A test that looks only at capability suffers tremendous hindsight problems. Indeed, this analysis mandates that the decision-maker use the completed invention as an intellectual roadmap, simply asking whether it could have been made. This is, of course, the essence of hindsight—an assumption that a person of ordinary skill at the time of invention would have known what to target: the completed invention.

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<sup>39</sup> Another recent study by Professor Gregory Mandel found the hindsight bias is so strong that even TSM may be unable to fully mitigate its effects in all cases. See Gregory Mandel, *Patently Non-Obvious II: Experimental Study on the Hindsight Issue before the Supreme Court*, *supra*, at 15. TSM may do more to reduce the effects of hindsight bias in complex technology cases. *Id.* at 32. Recent theoretical and empirical work supports this claim. See Christopher A. Cotropia, *Patent Law Viewed Through an Evidentiary Lens: The “Suggestion Test” as a Rule of Evidence*, 2006 BYU L. REV. \_\_\_\_ (forthcoming 2006), available at <http://ssrn.com/abstract=893965>, at 64; Sean M. McEldowney, *New Insights on the “Death” of Obviousness: An Empirical Study of District Court Obviousness Opinions*, 2006 Stan. Tech. L. Rev. 4, ¶ 41. But even if the TSM test is not perfect, it is better than the alternatives proposed in this case.

<sup>40</sup> The United States supports a similar approach. Br. of U.S., at 17.